



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,653	09/26/2003	Jeyhan Karaoguz	14311US02	8223

7590 04/11/2008
CHRISTOPHER C WINSLADE
MCANDREWS HELD & MALLOW LTD
500 WEST MADISON ST
34TH FLOOR
CHICAGO, IL 60661

EXAMINER

LUONG, ALAN H

ART UNIT	PAPER NUMBER
----------	--------------

2623

MAIL DATE	DELIVERY MODE
-----------	---------------

04/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

The art unit is changed into 2623.

Response to Amendment

This Office Action is responsive to the Amendment filed on 01/ 31 /2008.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims **1-4, 6- 8 and 10-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2002/0059621 A1 (US'621) to Thomas et al.; in view of US Patent. No. 6,055,314 (US'314) to Spies et al.

Regarding to claim 1: Thomas discloses a system for billing and authentication of a communication device in a communication network, comprising:

at least one communication device (communication device 264 as set top box 263 or communication device 269 as set top box 268; **see US'621, ¶0056**) deployed in at least one location (user device (1) 260 or user device (2) 265 of Fig. 2; **¶0051**)

a communication network (270 of Fig. 2) communicatively coupled to (user device (1) 260 or user device (2) 265 is coupled with 270 ; see Fig. 2) the at least one location (**¶0056**);

Information content (user-specific data or account information, ¶0092) residing on one communication network (remote server 210 coupling to communication network 270; see Fig. 2) and the at least one location (communication device 264 inside set top box 263 at user device 260, see Fig. 2, ¶0056)

Thomas fails to disclose a card carrying information related to one or more user-defined selections of the information content; wherein the card allows the at least one communication device to access the user-defined selections identified by the card, once the card is communicatively coupled to the at least one communication device.

Spies, in the same field of media exchange; discloses a card (These decryption capabilities are stored on an integrated circuit (IC) card, such as a smart card or PCMCIA card, that is issued to the viewer. The IC card is configured with cryptographic functionality to support the secure purchase of the decryption capabilities from the video merchant. The IC card can then operate in conjunction with a viewer's set-top box (STB), DVD player, or other video computing device to decrypt a video stream of the selected video content program using the purchased decryption capabilities stored on the IC card without exposing those capabilities to the viewer or video computing device; see **US'314, col. 2 lines 31-42)** carrying information related to one or more user-defined selections of the information content (the IC card has a pair of public and private exchange keys and a pair of public and private signing

Art Unit: 2623

keys. When the purchaser selects a video, the IC card digitally signs the order using the private signing key and passes a credential with the public exchange and signing keys to the video merchant computing unit; **see US'314, col. 3 lines 19-24**) (The purchaser browses the selections via a user interface program, such as the video-on-demand mode in interactive television systems, and orders a video content program. The video merchant downloads the decryption capabilities over the distribution network to the purchaser IC card, where they are stored; **col. 3 lines 13-18**), wherein **the card allows the at least one communication device** (The purchaser browses the video selection and rents one or more video programs. At check out, the purchaser presents the IC card to the video merchant and pays for the program. The video merchant inserts the IC card into a compatible I/O device connected to the merchant computing unit to download the decryption capabilities for the selected video program. The decryption capabilities are then stored on the IC card; **see col. 2 line 64 to col. 3 line 4**) ; the IC card might be inserted into the purchaser's computing unit resident at his/her own home which is interconnected to the video merchant computing unit via a distribution network, such as an interactive television (ITV) network, a computer network, or a telephone network. The viewer computing unit might be in the form of an

Art Unit: 2623

STB, a desktop or portable computer, a DVD player, or some other computing mechanism that is capable of handling video content programs; **see col. 3 lines 5-13**) to access the user-defined selections (to purchase a video content program is through remote access; the purchaser browses the selections interactively using a video purchasing application which executes on the purchaser computing unit. For instance, the video purchasing application might be in the form of a user interface program (e.g., a video-on-demand user interface) which enables the purchaser to shift through the various programs in an organized fashion. Once a program is selected, the purchaser computing unit generates an order for the video content program and sends the credential 54 along with the order over the network to the video merchant. The merchant computing unit 44 verifies the credential and downloads the cryptographic program key 56 over the distribution network to the purchaser IC card 50; **col. 6 lines 34-58**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify on-demand media distribution system of Thomas with a IC card as interface device as taught by Spies; in order to provide a secure video delivery system that is convenient for consumers to use. The system should grant selective access to paying consumers in a simple, secure manner.

Regarding to claim 2: Thomas discloses the system according to claim 1, wherein the communication network comprises one or more of a third party media server (Remote server network 210), a media storage server (211, 212 of Fig. 2, ¶0059-¶0060) a broadband access headend (150 of Fig.1), a cable infrastructure, a satellite network infrastructure (¶0039) a digital subscriber line infrastructure, an Internet infrastructure, an intranet infrastructure, a wired infrastructure, a closed communication infrastructure, a local area network, and a wireless infrastructure (see ¶0058 lines 7-14).

Regarding to claim 3: Spies also discloses the communication network comprises an Internet (Current and proposed technology further permits image transmission from a server over conventional data networks, such as the Internet, to computers or network terminals which display the images; see US'314, 206 of Fig. 9, col. 14 lines 27-30).

Regarding to claim 4: Thomas discloses the system according to claim 1, wherein the communication network comprises a local area network (¶0058, lines 7-14).

Regarding to claim 6: Spies further discloses the system according to claim 1, wherein the at least one communication device comprises a computer (merchant computer system 44); (The viewer computing unit might be in the form of an STB, a desktop or portable computer, a DVD player, or some other computing mechanism that is capable of handling video content programs; see US'314, Figs. 1, 2, col. 3 lines 10-13).

Regarding to claim 7: Spies teaches the information content comprises third party media content documents, files (The credential contains the public signing and exchange keys of the IC card, and can be signed by a trusted authority (i.e., a third party that is trusted by both the merchant and the purchaser); **see US'314, Fig. 3, col. 7, lines 64-67).**

Regarding to claim 8: Spies further discloses the card, as a IC card's user comprises a chip-enabled card (IC card 50 is a smart card. A " smart card" is the approximate size of a standard credit card and has a built-in microcontroller (MCU) 52 which enables the card to modify, or even create, data in response to external stimuli. The microcontroller 52 is a single wafer integrated circuit (IC) which is mounted on an otherwise plastic card; **see US'314, Fig. 2, col. 5 line 62-col. 6 line 8 and Fig. 6, col. 11 lines 26-39),**

Regarding to claim 10: Thomas discloses a system for billing and authentication of a communication device in a communication network, comprising:

a first communication device (communication device 264) deployed at a first geographic location (User equipment 260 as user equipment 160 in Fig. 1; Media distribution facility 150 may be a cable system headend, a satellite television distribution facility, a television broadcast facility; Media distribution facility 150 may also be connected to various user equipment 160. Such user equipment 160 may, for example, be located in the homes of users; **see ¶0039-¶0040 and Fig. 2; ¶0052-¶0054);**

a second communication device (communication device 269) deployed at a second geographic location (user equipment 265 as user equipment 160 in Fig. 1; *see* ¶0039-¶0040 and Fig. 2; ¶0052-¶0054);

a communication network (170) communicatively coupled to the first location (user equipment 260) and the second location (user equipment 265) (user equipment 160 in Fig. 1) (*see* Fig. 2; ¶0052-¶0054);

an independent server (remote server network 110 of Fig. 1 or 210 of Fig. 2) residing on the communication network (170 of Fig. 1 or 270 of Fig. 2); and information content (on-demand media data, ¶0059) residing on one first location (user 260), the second location (user 265), and the communication network (270),

wherein the independent server (210) receives one or more user-defined selections of the information content and provides media exchange services (remote server network 210 may provide a communications hub between user equipment 260 and 265 and other elements in network topology 200; *see* ¶0059-¶0060) related to the one or more user-defined selections of the information content to the first communication device (264) and the second communication device (269); (*see* Fig. 1 and ¶0091-¶0092), upon receipt of authentication (*see* Fig. 5B; ¶0080-¶0081) .

However, Thomas fails to disclose billing information for the one or more user-defined selections from the first communication device.

Spies, in the same field of media exchange; discloses billing information for the one or more user-defined selections from the first communication device (the subscriber rentals of video content programs).(The VOD application allows the subscribers to interactively peruse and select video content programs from the virtual video store. Additionally, the cable operator 202 might perform the billing and collection tasks resulting from subscriber rentals of video content programs; **see US'314, col. 14 lines 2-7**) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify on-demand media distribution system of Thomas with billing information as taught by Spies; in order to provide a secure video delivery system that is convenient for consumers to use. The system should grant selective access to paying consumers in a simple, secure manner.

Regarding to claim 11: Thomas also discloses the communication network comprises one or more of a third party media server (Remote server network 210), a media storage server (211, 212 of Fig. 2, ¶0059-¶0060) a broadband access headend (150 of Fig.1), a cable infrastructure, a satellite network infrastructure (¶0039), a digital subscriber line infrastructure, an Internet infrastructure, an intranet infrastructure, a wired infrastructure, a closed communication infrastructure, a local area network, and/or a wireless infrastructure (see ¶0058 lines 7-14) .

Regarding to claim 12: Thomas also discloses the communication network comprises the Internet (see ¶0044 lines 5-6).

Regarding to claim 13, 14: Thomas further discloses at least one communication device (150 and 160 of Fig. 1) comprises a cable headend, TV, a satellite TV distribution facility, any other facility for distributing on-demand media content and user TV, user PC and user audio equipment. (See ¶0039-¶0040).

Regarding to claim 15: In Thomas' system as claim 10 above, the media exchange services (120, 130 and 140 through communication network 170, **see Fig. 1 and ¶0036-¶0037**) comprise one or more of granting the first communication device (264 of Fig. 2) or the second communication device (269 of Fig. 2) access to the user-defined selections (310 section on remote control 300 of Fig. 3; **see Fig. 3 and ¶0062-¶0064**), processing the user-defined selections (**¶0080-¶0081**) by the first communication device (input device 261 transmits the control signal to communication device 264, see Fig. 2) or the second communication device (or input device 266 to communication device 269 of Fig. 2), pushing the user-defined selections onto the communication network (**¶0081 and Fig. 6A**), and pushing user-created information content (**¶0093**) onto the communication network (at user equipment 260 or 265 of Fig. 2) or between the first communication device and the second communication device (stored in a section of remote server network 110 of Fig. 1; see **¶0092**)

Regarding to claim 16: According to system above, Thomas teaches an upload and download features relating to content push restrictions or limitations, and information relating to content access (**¶0125, ¶0126 and ¶0127**) the system wherein the authentication and billing information is related to information relating to payment terms (Display screen 550 may contain information region 552 that

includes information on the title, purchase price, running time, rating, and other information related to the user's selection;

see US'621, window 552 of Fig. 5B)

Regarding to claim 17: Thomas teaches a method for billing and authentication of a communication device in a communication network, comprising:

a) selecting media exchange services (on-demand-media distribution system or user-specific files, para. [0107, 0121]) to be provided to a first communication device (on display 262 with device 264 at user 260) and a second communication device (on display 267 with device 269 at user 265), the media exchange services relating to user-defined selections of information content (para. [0087])(steps 902 and 903 of Fig. 9, para. [0101, 0102]).

giving access (para. [0080], step 904 or 906 of Fig. 9 para. [0103,0104]) to the selected media exchange services above available on the communication network (remote server network 210) by remote control 300; communicatively with the first communication device (display screen 600 of Fig. 6A on display 262 with 264 of Fig. 2, para. [0081]).

Thomas fails to teach purchasing a card the card giving access to the selected media exchange services available on the communication network and the card carrying information related to the selected media exchange services. Also communicatively coupling the card with the first communication device.

Spies, in the same endeavor; teaches purchasing a card the card giving access to the selected media exchange services available on the communication network (purchase a video content program is through remote access; the purchaser 26 might insert the IC card 50 into the purchaser's own computing unit (not shown in this figure) resident at his own home which is interconnected to the video merchant computing unit 44 via a distribution network, such as an interactive television (ITV) network, a computer network, or a telephone network; the video purchasing application might be in the form of a user interface program (e.g., a video-on-demand user interface) which enables the purchaser to shift through the various programs in an organized fashion; **see US'314, Fig. 2, col. 6, lines 34-58)** and the card carrying information related to the selected media exchange services (The computing unit generates an order describing the video content program and might additionally include instructions and authorization for payment. The microcontroller 52 of the IC card 50 is configured to execute various cryptographic functions, including hashing, signing, encryption, decryption, and authentication. The IC card 50 stores two asymmetric pairs of public and private cryptography keys: a signing pair and an exchange pair; **see col. 6, line 59-col. 7 line 3);** communicatively coupling the card with the first communication device (The viewer computing unit 60 has a card I/O device which is compatible with

Art Unit: 2623

the IC card 50. The viewer inserts the IC card 50 into the I/O device on the viewer computing unit 60. When the IC card 50 is coupled to the viewer computing unit 60, the microcontroller 52 on the IC card is interactively interfaced with the viewer computing unit 60 to cooperatively decrypt the video data stream received from the video content provider. This ensures that no security is lost when the IC card 50 is interfaced with the viewer computing unit 60; **see US'314, Fig. 3, col. 9, lines 14-29)** .

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify on-demand media distribution system of Thomas with a IC card as purchasing card as taught by Spies; in order to provide a secure video delivery system that is convenient for consumers to use. The system should grant selective access to paying consumers in a simple, secure manner.

Regarding to claim 18: Thomas teaches the method according to claim 17, further comprising:

e) allowing (relocate feature allow a user to freeze program on user equipment 260 and resume to another user 265, **see US'621, ¶0087)** program the second communication device to access the selected media exchange services

Regarding to claim 19: In Thomas' system as claim 17 above, the media exchange services (120, 130 and 140 through communication network 170, **see US'621, Fig. 1, ¶0036, ¶0037)** comprise at least one of granting the first communication

device (264 of Fig. 2) or the second communication device (269 of Fig. 2) access (310 on remote control 300 of Fig. 3) to the user-defined selections (¶0063) processing the user-defined selections (¶0080, ¶0081) by the first communication device (remote control 300 to communication device 264, Fig. 2) or the second communication device (or 300 on 269 of Fig. 2), pushing the user-defined selections onto the communication network (, ¶0081 and Fig. 6A), and pushing user-created information content (¶0093) onto the communication network (at user equipment 260 or 265 of Fig. 2) or between the first communication device and the second communication device (stored in a section of remote server network 110 of Fig. 1, see ¶0092).

Regarding to claim 20: Thomas teaches the method according to claim 17, further comprising:

e) allowing (step 907 of Fig.9, ¶0104) the second communication device (set top box 268 in user equipment 269, Fig. 2) to access user-created information content (steps 902, 904 of Fig. 9, ¶0103 , ¶0104) that is available to the first communication device (¶0092).

Regarding to claim 21: Thomas teaches a method for billing and authentication of a communication device in a communication network, comprising:

a) selecting media exchange services (an VOD program, ¶0077 line 1-2) to be provided to a first communication device at a first geographic location (display screen 450 of Fig. 4B of display 262 in user devices 260 of Fig. 2]) and a second communication device at a second geographic location (display screen 450 of Fig. 4B of

display 267 in user devices 265 of Fig. 2), the media exchange services relating to a user-defined selection of information content (**¶0077**) that is available on the communication network.

c) entering identification information (PIN, see para. [0080]) via the first communication device (display screen 500 of Fig. 5A), the identification information validating the subscription to the selected media exchange services (button 557 of Fig. 5B is selected, see **¶0081**) and

d) accessing (the request VOD program may be displayed, see **¶0081 lines 6-8**) the selected media exchange services by the first communication device after entry of the identification information (display screen 600 of Fig. 16A on display device 262 of user device 260).

establishing a subscription (by ordering display screen 550) with an independent server (remote server network 210 of Fig. 2 as VOD server) located on the communication network (270 of Fig. 2 as cable headend) (cable headend in network 270)(also see **¶0077- ¶0079 and Fig. 5A and 5B**). However, Thomas fails to disclose the subscription allowing for access by the first communication device and the second communication device to the selected media exchange services available on the communication network .

Spies, in the same field of media exchange; discloses the subscription allowing for access by the first communication device and the second communication device (interconnected to multiple subscribers 204) to the selected media

exchange services available on the communication network (communication over an interactive network 206) (Interactive entertainment network system 200 has a cable operator 202 interconnected to multiple subscribers 204 via an interactive network 206. In this implementation of the video purchase and delivery system, the cable operator 202 serves dual roles of video merchant and video content provider. The cable operator 202 performs its traditional tasks of providing video content programs to the subscribers and facilitating communication over an interactive network 206. The cable operator 202 might also support a video-on-demand (VOD) application which provides a virtual video store in the subscriber's own home. Additionally, the cable operator 202 might perform the billing and collection tasks resulting from the subscriber rentals of video content programs; **see US'314, Fig. 9 col. 13 line 55 to col. 14 line 7).** It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify on-demand media distribution system of Thomas with the subscription allowing for access by multiple subscribers as taught by Spies; in order to provide a secure video delivery system that is convenient for consumers to use. The system should grant selective access to paying consumers in a simple, secure manner.

Regarding to claim 22: Thomas teaches the method according to claim 21, further comprising:

e) allowing (relocate feature allow a user to freeze program on user equipment 260 and resume to another user 265; see ¶0087) program the second communication device to access the selected media exchange services .

Regarding to claim 23: Thomas teaches the method according to claim 21, further comprising:

e) allowing (step 907 of Fig.9, para. [0104]) the second communication device (set top box 268 in user equipment 269, Fig. 2) to access user-created information content (steps 902, 904 of Fig. 9, para. [0103, 0104]) that is available to the first communication device (para. [0092])

Regarding to claim 24: In Thomas' system as claim 21 above, the media exchange services (120, 130 and 140 through communication network 170, see Fig. 1 para. [0036, 0037]) comprise one or more of granting the first communication device (264 of Fig. 2) or the second communication device (269 of Fig. 2) access (310 on remote control 300 of Fig. 3) to the user-defined selections (para. [0063]), processing the user- defined selections (para. [0080, 0081]) by the first communication device (remote control 300 to communication device 264, Fig. 2) or the second communication device (or 300 on 269 of Fig. 2), pushing the user-defined selections onto the communication network (para. [0081] and Fig. 6A), and pushing user-created information content (para. [0093]) onto the communication network (at user equipment 260 or 265 of Fig. 2) or between the first communication device and the second

communication device (stored in a section of remote server network 110 of Fig. 1, see para. [0092]).

Regarding to claim 25: is the same ground rejection of claim 16.

2. Claims 5, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Thomas et al. and Spies et al.; in view of US Patent. No. 7,134,131(US'131) to Hendricks et al.

Regarding to claim 5: Neither Thomas nor Spies discloses the communication link is a wireless link comprising a local area networks (LANs) comprises an Ethernet.

Hendricks, the same endeavor; teaches (the broadcast programs and the order and authorization signals may also be provided over a LAN such as an Ethernet; **US'131, col. 21 lines 38-40**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify media exchange method of Thomas and Spies with processing user's transaction using Ethernet as taught by Hendricks, in order to provide effective authorization and billing system, the broadcast networks will likely not implement pay-per-view programming, thereby reducing programming choices for consumers.

Regarding to claim 9: On the system according to claim 1; Thomas teaches an upload and download features relating to content push restrictions or limitations, and information relating to content access (see ¶0125- ¶0127); Spies teaches wherein the information carried on the card is related to at least one of accessing the user-defined selections by the at least one communication device (see claim 1 discussion), but fail to

teach processing the user-defined selections by the at least one communication device, pushing the user-defined selections onto the communication network, pushing user-created information content onto the communication network, information relating to securing a payment, information relating to payment terms, information relating to billing.

Hendricks teaches processing for pushing the user-defined selections (US'131, Fig. 15 a, col. 32 lines 27-39) onto the communication network (EPG form at web site 106 on Internet 105, col. 31 lines 52-58), pushing user-created information content (Fig. 15b, col. 32 lines 55-66) onto the communication network, information relating to securing a payment, information relating to payment terms (col. 28 lines 41-52), information relating to billing (col.28 lines 21-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify media exchange method of Thomas and Spies with processing user's transaction as taught by Hendricks, in order to provide effective authorization and billing system, the broadcast networks will likely not implement pay-per-view programming, thereby reducing programming choices for consumers.

Response to Arguments

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571)270-5091 or Fax number (571) 270-6091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. L./

Examiner, Art Unit 2623

Date 03/24/2008

/Scott Beliveau/

Supervisory Patent Examiner, Art Unit 2623